A Users Guide to Ace of Coders

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Outline

Introduction

Code Reference
- summon()
- command()
- findByType(type) vs findByType(type, array)
- Control Points

Unit stats
- Overview
- Detailed Stats

Introduction

This guide is intended as unofficial reference for players. It has been developed together with David Liu, the Artisan who helped create Ace of Coders, and should be complete. Please direct any complaints to J_F_B_M as PM in the official Discourse forum.

summon(type)

The method `summon(type)` takes a string denoting the unit type you want to spawn and will summon one instance of this `type` next to you.

This will only happen though if you have enough gold and that you are allowed to build that type; otherwise your hero will not be able to do anything until he has enough gold. You can use it like in the following example:

```
var type = "soldier";
if (this.gold >= this.costOf(type)) {
    this.summon(type);
}
```

command(unit, command, target)

The method `command(unit, command, target)` takes a (friendly) unit, a string and a target (either a position or a unit).

The possible commands are `"attack"`, `"defend"`, `"move"` and `"attackPos"`. Note that not every unit can obey every command. An arrow tower can not `"move"`, and the artillery is the only unit that can `"attackPos"`.

```
// Orders the nearest friend to defend the hero
var friend = this.findNearest(this.findFriends());
this.command(friend, "defend", this);
```

command() — Additional notes

”attack”	will order a friend to attack the target. The friend will chase the target until it comes in range.
”defend”	will order a friend to defend a position or target. When ordered to defend a target it will automatically move between the target and the closest thread. When ordered to defend a position it will move to that position and engage every enemy that comes to close.
”move”	will order a friend to move to a position. The friend will not engage anyone during the movement. As the arrow tower is immobile he can not ”move”.
”attackPos”	can only be issued to an artillery-unit. The artillery will shoot at the given position. Useful to lead a target to actually hit it.

findByType(type) vs findByType(type, array)

To find all soldiers on the map you would usually use `this.findByType("soldier")`, but you can also give the method an already existing array as secondary argument to only get the units of the type in that array. This is useful to only issue commands to your own units (the enemies won't listen to you):

```
var friends = this.findFriends();
var soldiers = this.findByType("soldiers", friends);
```

Control Points

getControlPoints() Gives you a list of all control-points on the map. You can access it like any normal list with an index. The list is ordered so that the lowest index is your own corner, the highest index is the enemies corner and the indexes in between are in ascending distance to your own corner.

getControlPointsMap() Gives you a map that maps strings to control-points. Those strings are the names of the control-points and will point to different control-points depending on which team you are (see also next page). The control-points are (ordered by distance): `"nearCorner"`, `"nearA"`, `"nearB"`, `"center"`, `"farB"`, `"farA"`, `"farCorner"`

Control Points — Examples

```
//Will evenly distribute your soldiers over the controlPoints
var points = this.getControlPoints();
var friends = this.findFriends();
for (var i = 0; i < friends.length; ++i){
    this.command(friends[i], "defend", points[i %
points.length].pos);
}
```

```
//Will send  your units to the southern (humans) or northern
(ogres) control-point
var points = this.getControlPointsMap();
var friends = this.findFriends();
for(var j = 0; j < friends.length; j++){
    this.command(friends[j], "defend", points.nearA);
}
```

Overview

Unit Type	DPS	Range	HP	Speed	Cost
soldier	12	3	200	6	20
archer	26	25	30	9	25
artillery	69[1]	65	100	4	75
arrow-tower	70	30	600	0	100
goliath	120	5	6000	4	—[2]

Table 1: Unit stats

[1] Attacks need longer than one second

[2] Cannot be built

Detailed Stats Introduction

The next section contains additional information and extra hints for each unit. It will not detail every property of the units. It is expected that you know them from normal CodeCombat-plays.

Type	Type of the unit in-game. You can copy it directly in your code
Health	Maximum and starting health of the unit
DPS	Stat derived by computing Damage/Attack Speed
Dmg	Actual damage per hit
AS	Time it takes to perform one attack (Attack Speed). The unit will not be able to do anything else during an attack!
Range	Attack Range of the unit. If the target is closer than this it will be attacked, otherwise it will be chased.
Speed	Movement Speed of the unit in m/s. 0 means the unit is immobile.
Cost	Gold Cost of the unit. A unit is always placed next to the hero.

Soldier

Type	Health	DPS	Dmg	AS	Range	Speed	Cost
`"soldier"`	200	12	6	0.5	3	6	20

Table 2: Soldier

Strategy Hints

Some say the soldier is just a cheap and expendable unit, but more often than not he will be the backbone of your army. The soldier is the only melee unit besides your champion. He can be used for guard purposes, to defend other units or simply as meat-shield. Don't underestimate a group of soldiers chasing your Hero. They can easily outrun you and can take 3 hits before they go down.

Archer

Type	Health	DPS	Dmg	AS	Range	Speed	Cost
"archer"	30	26	13	0.5	25	9	25

Table 3: Archer

Strategy Hints

Easily your primary unit, the archer is your main unit when it comes to ranged attacks or stopping your enemy from taking a command point too easily. The archer can be taken down with one hit from your hero, but this assumes you can catch it. Not an easy task as the archer is the fastest unit on the field. Maybe even fast enough to dodge an artillery shell?

Artillery

Type	Health	DPS	Dmg	AS	Range	Speed	Cost
`"artillery"`	100	69.44	250	3.6	65	4	75

Table 4: Artillery

Strategy Hints

Artillery is most useful against Arrow Towers as they cannot escape the slow shells. It is also useful for clearing out an entire Control Point, as well as dealing damage to a large group of units. Be careful though, as artillery also causes friendly fire.

Arrow Tower

Type	Health	DPS	Dmg	AS	Range	Speed	Cost
`"arrow-tower"`	600	70	70	1.0	30	0	100

Table 5: Arrow Tower

Strategy Hints

This is your primary defense unit. It out-ranges archers just enough to get the first shot and can kill them in one hit. It's biggest enemy is the artillery and as such it can never stand without some guards who take care of such threats. It is also the only immobile unit on the field.

Goliath

Type	Health	DPS	Dmg	AS	Range	Speed	Cost
"goliath"	6000	120	90	0.75	5	4	—

Table 6: Goliath

Strategy Hints

Protect him at all costs because when he is dead you lose. Luckily this will take some time, after all he starts with 6000 Health. You can control him like you normally control your hero in CodeCombat. Don't forget about his extremely powerful abilities which can easily turn the tides if used right.